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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,748	04/12/2001	Michael Joseph Stirniman	STL 2932	2911

28063 7590 05/23/2003

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EXAMINER

HOPKINS, ROBERT A

ART UNIT PAPER NUMBER

1724

DATE MAILED: 05/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/833,748

Applicant(s)

STIRNIMAN ET AL.

Examiner

Robert A Hopkins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 1-5 and 16-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-15 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of claims 6-15 and 20 in Paper No. 10 is acknowledged.

Claims 1-5 and 16-19 are withdrawn from further consideration pursuant to 37 CFR 1.142(b).

Claim Objections

Claims 8,9, and 14 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim 8 describes the function of the cold traps, but does not provide additional structural limitations to further limit claim 6.

Claim 9 depends on claim 8, and recites a method step(transferring the storage discs), and therefore also does not provide additional structural limitations to further limit claim 6.

Claim 14 recites a method step(wherein the cold trapping surfaces are cooled), but does not provide additional structural limitations to further limit claim 13. Examiner suggests rewording the claim to further limit structure, such as –wherein the cold trapping surfaces further include a mechanism for passing refrigerants past the cold

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trapping surfaces so that the cold trapping surfaces are cooled to have a temperature ...

--.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 6,8,10, and 12-15 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Noji et al(6158226).

Noji et al teaches a vapor lubrication station comprising one or more cold traps(18) to prevent migration of lubrication molecules that are not deposited onto storage discs during a vapor lubrication process from the vapor lubrication station(10 in figure 2) into adjacent process chambers(20). Noji et al further teaches one or more entry/exit ports disposed between the vapor lubrication station and/or the adjacent process chambers, wherein the one or more cold traps are disposed around the one or more entry/exit ports , respectively. Noji et al further teaches wherein the vapor lubrication station is held under low working pressure in the range of about 5×10^{-5} to 5×10^{-9} Torr by means of high performance vacuum pumps(12). Noji et al further teaches wherein the cold traps comprise cold trapping surfaces(42) to prevent migration of lubrication molecules that are not deposited onto the disc into the adjacent process

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chambers. Noji et al further teaches wherein the cold trapping surfaces are cooled to have a temperature in the range of about -195 degrees C to 25 degrees C using refrigerants selected from a group consisting of liquid nitrogen, low-temperature refrigerant, and cold water(column 4 lines 58-62). Noji et al further teaches one or more temperature sensors(58) to sense the temperature of the cold trapping surfaces and to output a signal proportional to the sensed temperature, and control circuitry coupled to the temperature sensors to monitor the temperature of the cold trapping surfaces by receiving the signal from the temperature sensors(column 6 lines 28-39).

Claim 20 is rejected under 35 U.S.C. 102(e) as being clearly anticipated by Noji et al(6158226).

Noji et al teaches a vapor lubrication station comprising means(10) to deposit lubrication molecules onto storage discs, and means to prevent migration of lubrication molecules that are not deposited onto storage discs during a vapor lubrication process in the vapor lubrication station(10) into adjacent process chambers(20).

Claims 6,8, 10, and 12-14 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Lee et al(6241793).

Lee et al teaches a vapor lubrication station comprising one or more cold traps(40) to prevent migration of lubrication molecules that are not deposited onto storage discs during a vapor lubrication process from the vapor lubrication station(12 in figure 1) into adjacent process chambers(18). Lee et al further teaches one or more entry/exit ports disposed between the vapor lubrication station and/or the adjacent process chambers, wherein the one or more cold traps are disposed around the one or

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more entry/exit ports , respectively. Lee et al further teaches wherein the vapor lubrication station is held under low working pressure in the range of about 5×10^{-5} to 5×10^{-9} Torr by means of high performance vacuum pumps(not shown). Lee et al further teaches wherein the cold traps comprise cold trapping surfaces(60) to prevent migration of lubrication molecules that are not deposited onto the disc into the adjacent process chambers. Lee et al further teaches wherein the cold trapping surfaces are cooled to have a temperature in the range of about -195 degrees C to 25 degrees C using refrigerants selected from a group consisting of liquid nitrogen, low-temperature refrigerant, and cold water(column 5 lines 8-11).

Claim 20 is rejected under 35 U.S.C. 102(e) as being clearly anticipated by Lee et al(6241793)

Lee et al teaches a vapor lubrication station comprising means(12) to deposit lubrication molecules onto storage discs, and means(40) to prevent migration of lubrication molecules that are not deposited onto storage discs during a vapor lubrication process in the vapor lubrication station(12) into adjacent process chambers(18).

Claims 6-9 and 12-15 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Nguyen(US 2002/0096113).

Nguyen teaches a vapor lubrication station comprising one or more cold traps(36) to prevent migration of lubrication molecules that are not deposited onto storage discs during a vapor lubrication process from the vapor lubrication station(1 in figure 4) into adjacent process chambers(see figure 4). Nguyen further teaches wherein

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the adjacent process chambers comprise transport chambers used in transporting the storage discs between the process chambers. Nguyen further teaches transferring the storage discs using disc handling systems selected from the group consisting of transport mechanisms, conveyors, lifters, and one or more cassettes. Nguyen further teaches wherein the vapor lubrication station is held under low working pressure in the range of about 5×10^{-5} to 5×10^{-9} Torr by means of high performance vacuum pumps(35). Nguyen further teaches wherein the cold traps comprise cold trapping surfaces to prevent migration of lubrication molecules that are not deposited onto the disc into the adjacent process chambers. Nguyen further teaches wherein the cold trapping surfaces are cooled to have a temperature in the range of about -195 degrees C to 25 degrees C using refrigerants selected from a group consisting of liquid nitrogen, low-temperature refrigerant, and cold water(paragraph 15, lines 10-13).

Claim 20 is rejected under 35 U.S.C. 102(e) as being clearly anticipated by Nguyen(US 2002/0096113).

Nguyen teaches a vapor lubrication station comprising means(1) to deposit lubrication molecules onto storage discs, and means(36) to prevent migration of lubrication molecules that are not deposited onto storage discs during a vapor lubrication process in the vapor lubrication station(1) into adjacent process chambers(see figure 4).

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 6,8, and 10-14 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Caton et al(5303558).

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Caton et al teaches a vapor lubrication station comprising one or more cold traps(14) to prevent migration of lubrication molecules that are not deposited onto storage discs during a vapor lubrication process from the vapor lubrication station(12 in figure 1) into adjacent process chambers(not shown). Caton et al further teaches one or more entry/exit ports disposed between the vapor lubrication station and/or the adjacent process chambers, wherein the one or more cold traps are disposed around the one or more entry/exit ports , respectively. Caton et al further teaches wherein the one or more entry/exit ports comprise valves(34) that open and close. Caton et al further teaches wherein the vapor lubrication station is held under low working pressure in the range of about 5×10^{-5} to 5×10^{-9} Torr by means of high performance vacuum pumps(16). Caton et al further teaches wherein the cold traps comprise cold trapping surfaces(80) to prevent migration of lubrication molecules that are not deposited onto the disc into the adjacent process chambers. Caton et al further teaches wherein the cold trapping surfaces are cooled to have a temperature in the range of about -195 degrees C to 25 degrees C using refrigerants selected from a group consisting of liquid nitrogen, low-temperature refrigerant, and cold water(column 5 lines 40-53).

Claim 20 is rejected under 35 U.S.C. 102(e) as being clearly anticipated by Caton et al(5303558)

Caton et al teaches a vapor lubrication station comprising means(12) to deposit lubrication molecules onto storage discs, and means(14) to prevent migration of lubrication molecules that are not deposited onto storage discs during a vapor

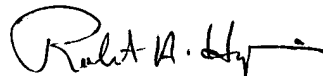
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lubrication process in the vapor lubrication station(12) into adjacent process chambers(not shown).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert A Hopkins whose telephone number is 703-308-3913. The examiner can normally be reached on Monday-Friday 9:00am-3:00pm, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on 703-308-3318. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9572 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Robert A Hopkins
Primary Examiner
Art Unit 1724

rah
May 21, 2003